Professor Sir Colin Blakemore FRS, a brilliant force for good within neuroscience and beyond (1944–2022)

Colin Blakemore, an extraordinary neuroscientist, science communicator and champion of medical research, died from motor neuron disease on 27 June 2022 at the age of 78. Colin was a pioneer in multiple research fields, including visual neuroscience, brain development and experience-dependent plasticity of the cerebral cortex. He later became renowned for his highly impactful work in broader areas, including science communication, medical research policy and science advocacy.

Colin was born in Stratford-upon-Avon, UK in 1944. He won a state scholarship to Corpus Christi College, University of Cambridge, where he studied Medical Sciences and Experimental Psychology. Colin was then drawn to neuroscience and undertook a PhD at the University of California, Berkley, where he performed pioneering experimental studies with Horace Barlow and other neuroscience luminaries, resulting in a thesis on *Binocular Interaction in Animals and Man*. In 1968 he was recruited back to the University of Cambridge, where he was first Demonstrator and then Lecturer in Physiology, and subsequently became Director of Medical Studies at Downing College. He was appointed as the Waynflete Professor of Physiology at University of Oxford, in 1979, at the unprecedented tender age of 35 years. In Berkley, Cambridge and Oxford, Colin made many major contributions to our understanding of the organization and development of the visual system[1]. He was also amongst the first to propose that the environment shapes the developing and adult brain[2]. He identified factors that mediate neural plasticity at the molecular, cellular and systems levels[1]. His work defined the periods during which manipulation of sensory input has a lasting effect on sensory perception, thereby defining critical periods for therapeutic interventions. Colin's research on amblyopia eventually led to clinical trials and he continued to work on clinical publications until his death[3]. Many of his seminal research articles have become 'citation classics'[4], indicating their lasting impact. His major scientific legacies include not only his own extraordinary publication record,

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but also the many postdocs and graduate students from around the world trained by him, many of whom have continued Colin's impressive legacy in neuroscience and broader fields of scientific endeavour. He also taught generations of medical and biomedical students, all of whom remember him fondly. The Large Lecture Theatre at the Department of Physiology, Anatomy and Genetics at Oxford was named the Blakemore Lecture Theatre in his honour in August 2021.

Colin's influence and achievements extended beyond neuroscience research. He was Director of the James S. McDonnell and Medical Research Council Centre for Cognitive Neuroscience at the University of Oxford. He served as President of the Biosciences Federation (now known as the Society of Biology), the British Neuroscience Association and the Physiological Society, and as President and Chairman of the British Association for the Advancement of Science (now known as the British Science Association). Colin was also Chief Executive of the British Medical Research Council (MRC). His research was recognized by several societies; Colin was elected Fellow of the Royal Society, the Academy of Medical Sciences, Academia Europaea and the European Academy of Sciences and Arts. He was an Honorary Fellow of the Royal College of Physicians, the Royal Society of Medicine, the Institute of Biology, the British Pharmacological Society, the Society of Biology, and Corpus Christi College and Downing College, University of Cambridge. He was knighted in the 2014 Birthday Honours for services to scientific research, policy and outreach.

Colin communicated the importance of science at national and international levels, including science policy and neuroethics[5–7]. He believed that greater understanding of the world around us could ease conflicts that are mostly based on misinterpretations, and that public understanding of scientific issues can promote social harmony. Colin contributed to radio and television programmes, including the BBC Reith Lecture in 1976 and a major thirteen-part BBC television series that was accompanied by a bestselling book for the lay public (*The Mind Machine*) in 1988.

Our time as graduate students and subsequently as postdoctoral fellows in Colin's Oxford laboratory was transformative for our neuroscience careers, and we are deeply grateful for the outstanding opportunities we were given. Colin was always kind, generous and encouraging. His passion and optimism meant that he encouraged innovation and risk-taking, in a research environment that facilitated intellectual independence and academic freedom.

Colin was a man of boundless energy. During his regular runs around Oxford, other much younger colleagues could barely keep up with his cracking pace. Colin completed 18 marathons — his best time was 2 hours 43 minutes — and maintained an enviable level of fitness until well into his 70s. The Waynflete Professor was most certainly fleet of foot!

And then there was Colin's rapier-sharp wit. We recall when a visiting professor, one of the many world-class neuroscientists to visit his laboratory, was having a birthday. At the time, one project in Colin's laboratory involved studying how a subpopulation of callosal projecting layer 5 neocortical pyramidal neurons retract their dendritic

tufts that reached to the pial surface during the first week of postnatal development in the mouse. Colin's memorable message on the birthday card was "May your tuft never retract"!

We recall neuroscience seminars in the Sherrington Room of Oxford Physiology, where the intellectual atmosphere was electric and the scientific discourse was wonderfully intense and well informed. Colin, and others, provided an environment in which postdocs, students and others could develop independence in a dynamic intellectual environment, bubbling with new ideas, bold experiments and fun science. Furthermore, he will always be remembered for his public science communication and his profound courage in standing up for biomedical research, despite the enormous personal burden that would have defeated so many others. As a defender of animal research, he was inspirational and courageous, persisting in the face of adversity where many others would have run for cover. Colin had an exceptional mind, which he used for the betterment of humanity and the world around him.

Colin was very much a polymath and Renaissance man, with exceptional knowledge and skills that extended well beyond science, encompassing the broader human experience. As a communicator of science, he was without par. We recall many of his public lectures (including the 2010 Royal Society Ferrier Award and Lecture), which include the best examples of neuroscience communication we have ever witnessed.

Later in his career, Colin held professorial positions at the University of London and City University of Hong Kong, whilst maintaining links with Oxford, continuing both neuroscience research and his many other services to science and medical research.

We will never forget Colin, who was a dear friend and mentor. He not only devoted his life to the study of the brain, but was an extraordinary exemplar of a mind full of ideas, passion and productivity. Colin was brilliant, endlessly curious and an inspiration to all of us who care deeply about science. We can all follow his noble example and strive to improve our understanding of the world around us, including the developmental origins of conditions such as autism, schizophrenia and dyslexia, and the external factors involved in the manifestation of the symptoms of Huntington's disease and other brain disorders. Colin's career was strongly supported by his late wife, Andrée (nee Washbourne). Colin is survived by his beloved daughters Sarah-Jayne, Jessica and Sophie and by four grandchildren. ❐

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